

REMARKS

This amendment is in response to the Official Action mailed June 14, 2007. No amendments are made. Claims 14-19 were canceled in a previous paper. Claims 1-13 are now presented for consideration by the Examiner.

Obviousness Rejections

In the Official Action, the Examiner rejected claims 1-7 and 11-13 under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 5,964,815 to Wallace et al. ("Wallace") in view of U.S. Patent No. 4,468,612 to Starr ("Starr") and further in view of U.S. Patent Publication No. 2002/0057689 to Nakatsugawa ("Nakatsugawa"), and rejected claims 8-10 under 35 U.S.C. § 103(a) as unpatentable over Wallace in view of Starr, further in view of Nakatsugawa, further in view of U.S. Patent No. 6,988,670 to Keen et al. ("Keen") and further in view of U.S. Patent Publication No. 2004/0014418 to Farag et al. ("Farag").

Cited References

The Wallace reference, which is the primary reference relied on by the Examiner, teaches an air bag restraint system in which devices 12 on a control interconnection 44 contain electronic switches 54 that regulate communication between a controller 38 and any devices downstream of the device (Wallace, Abstract; col. 5, line 66 – col. 6, line 27; FIG. 1).

Wallace further teaches that each of the switches 54 is in an "off" or "open" position until the associated device 12 is programmed by the controller 38, and until control circuitry 18 in the device 12 subsequently closes the switch (Wallace, col. 6, lines 28-30 & 62-65; col. 7, lines 9-

12). Thus, referring to FIG. 1 of Wallace, an electrical connection 46A from the controller 38 to the device 12B is not completed until the upstream device 12A is programmed and the control circuitry 18A in the upstream device 12A closes the upstream switch 54A.

The Examiner combines Wallace with Starr, which is cited as teaching connectors.

The Examiner has additionally cited the Nakatsugawa reference as teaching “a communication system, upon connection of a peripheral device, capable of programming the device instantaneously” (Official Action at 3, lines 14-15). Applicant asserts that no such teaching is contained in Nakatsugawa. In fact, the Nakatsugawa reference refers to the ability to “recognize” connected devices “instantly” (Nakatsugawa at [0007]) or to bring connected devices into a “communicable condition instantly” (Nakatsugawa at [0103]).

Nakatsugawa teaches storing in advance the addresses of “instruments” that are likely to be connected to the system (Nakatsugawa at [0068], [0103]). While the instrument is disconnected or otherwise nonfunctional, a corresponding “communication propriety flag” stored in the system is set to the “incommunicable” condition ([0076]). Upon the detection of an additional instrument being connected to the system, the communication propriety flag corresponding to that instrument is rewritten from the “incommunicable” condition to a “communicable” condition ([0101]). Only then is the new device capable of receiving communications ([0096]).

Apparatus Claims 1-10

Claim 1 of the present application requires:

wherein engagement of the electrical contacts of a particular one of the first plurality of electrical couplings with the electrical contacts of a corresponding one of the second plurality of

electrical couplings completes an electrical connection from the controller to an electrical coupling of the first plurality of electrical couplings that is farther from the controller than, and adjacent to, the particular one of the first plurality of electrical couplings.

As illustrated, for example, in FIG. 2 of the present application, engagement of the coupling 62 with the coupling 42 completes an electrical connection from the controller 20 to the coupling 44 that is farther from the controller than, and adjacent to, the coupling 42.

As admitted by the Examiner, Wallace does not teach such a system. Instead, an electrical connection to a downstream device 12B is not created in the Wallace system until after the upstream device 12A is connected and after the device is programmed, and not until the connected and programmed device 12A closes the electronic switch 54A (Wallace, col. 8, lines 39-43). Wallace therefore does not teach that the engagement of one coupling in the series completes an electrical connection from the controller to an adjacent coupling in the series farther from the controller, as required by amended claim 1.

As further admitted by the Examiner, combining Wallace with Starr does not cure that problem. Even with the Starr connectors, engagement of contacts in corresponding connectors does not complete an electrical connection from the controller to an adjacent connector farther from the controller, as claimed. Instead, the connection to the downstream connector is not completed until after the contacts in the connectors are engaged and after the device is programmed, and after the programmed device can close the electronic switch 54.

The Examiner has alleged that the Nakatsugawa reference cures that deficiency. Even assuming, for purposes of argument, that Nakatsugawa teaches “a communication system, upon connection of a peripheral device, capable of programming the device instantaneously,” as alleged by the Examiner, the combination still does not yield the claimed invention. If the

devices of Wallace were “instantaneously programmed,” those devices would still have to close the electronic switch 54 before an electrical connection would be completed. The engagement of the electrical contacts of a coupling therefore would not complete the connection, as required by claim 1. Instead, activation of the electronic relay switch 54 by the programmed device 12, which must take place after engagement of the couplings, would complete the connection.

Applicant respectfully asserts, however, that the Nakatsugawa reference does NOT teach “a communication system, upon connection of a peripheral device, capable of programming the device instantaneously,” as alleged by the Examiner. Instead, a new device is merely brought into a communicable condition, and not programmed, upon connection (Nakatsugawa at [0007]). The device cannot be communicated with, and certainly not programmed, until after the communication propriety flag corresponding to that device is rewritten from the “incommunicable” condition to a “communicable” condition (Nakatsugawa at [0101]). That rewriting takes place after connection or after the device is otherwise brought into a communicable condition.

The combination of Wallace, Starr and Nakatsugawa would therefore yield a system in which, upon connection of a new device, a flag for that device would first be rewritten to a “communicable” condition, then the device would be programmed, and then the electronic switch 54 would be closed. The combination therefore does not teach or suggest a device “wherein engagement of the electrical contacts of a particular one of the couplings . . . completes an electrical connection,” as required by claim 1.

At least because the combination of Wallace, Starr and Nakatsugawa does not teach the limitations of claim 1, Applicant submits that claim 1 is patentable over those references. It is

further submitted that dependent claims 2-7, which depend from claim 1 and incorporate its limitations, are patentable at least for the reasons set forth with reference to claim 1.

Independent claim 8 contains limitations similar to those discussed above with reference to claim 1. Applicant therefore submits that claim 8, together with claims 9 and 10, which depend therefrom, are patentable for the same reasons set forth above with reference to claim 1.

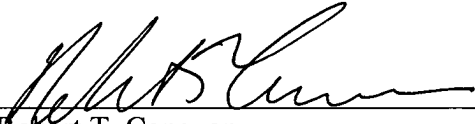
Applicant further asserts that the rejection of independent method claim 11 should be withdrawn for the same reasons discussed above with reference to claim 1. Specifically, Wallace in view of Starr and further in view of Nakatsugawa does not teach “completing an electrical connection from the controller to a second one of the ports when an electrical connection via a first one of the ports creates a closed path,” as claimed. Instead, the combination results in a system wherein the electrical connection to the second one of the ports is completed after the electrical connection via the first one of the ports. Applicant therefore submits that claim 11, together with dependent claims 12 and 13, are patentable over those references..

Conclusion

Applicant therefore respectfully asserts that claims 1-13 are now in condition for allowance, and earnestly requests that the Examiner issue a Notice of Allowance.

Should the Examiner have any questions regarding the present case, the Examiner should not hesitate in contacting the undersigned at the number provided below.

Respectfully,

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